area and a number of other factors. And I think some kind of formula like that makes sense as we look at how do we measure affordability and make sure that we're not excluding school districts that just plain could not afford even a discount rate otherwise. The other major issue as we look at competition, and I am sure again most of you are well aware of this, that lack of competition is still a major problem in many of our areas, especially rural and remote areas, and so how do we incent competition or in some other way encourage that as we look at making it truly affordable.

Also been involved with the K-20 process here in this state. Had a chance to hear from Dave Danner earlier today. This will help during the coming year in establishing better infrastructure for both higher education and the K-12 system as a whole. It is just beginning to be defined how that will reach school districts, but again, it does not in its funding source address the issue of ongoing costs so that this process of FCC work will be a major help as they look at how do they address the issue of ongoing costs through the years. While we would love to see free, that's a nice theory, in practice my sense is that's probably going to lead to unacceptable impact

on residential rates, and so we feel working on a discount with a flexibility for true need is probably a better approach with possibly the idea of a scholarship for a school district that truly could not afford anything and that would have to be a case by case. We find when school districts have some volume of buying, that is, they're putting out money for it, they tend to make better use of the resources. So from that perspective as well I think that's a reasonable approach. One of our recent grant competitions we required of the school district to get technology money a local match on things like staff development and some of the other issues that people have identified here today as being key components in making sure that the resource is used wisely and really improves learning for kids, which is really what we're after in the final analysis.

As we look at the total funding picture I think it's important that we see this as kind of a piece of the puzzle, that the work that you're doing along with local buying, bonds, levies, planning, state support, federal support, as they try to make alignment of the different postures that they have going, grants, business associations, partnerships all are going to have to play a role, that we can't look

to any one funding source to solve all the issues but each one of those need to be aligned to bring the best possible impact on education. With that if you have questions I would be glad to take them.

CHAIRMAN NELSON: Thank you for waiting all afternoon. Mr. Mitchell mentioned the FTS 2000 problems. Do you have any knowledge?

MR. SMALL: Quite honestly, I've got a note to look that up as well.

CHAIRMAN NELSON: I would really be interested to find out if state and local and tribal governments are going to have access to them.

MR. SMALL: I would be fascinated.

CHAIRMAN NELSON: I would appreciate your immediate feedback if you can.

MR. SMALL: Sure, you bet.

CHAIRMAN NELSON: Does the superintendent's office have a view on whether it should be labs or classrooms? Is there a standard for Washington schools or --

MR. SMALL: What we see, and this again flows from the fact that it's a low control state, is that there's a real mixed up approach there, and a lot of that needs to be approached from a local planning issue in terms of what subject areas, what kinds of

usage. What we do see is that best practices tend to be either four to six network computers per classroom or a number of network labs that have easy access so that you don't have to wait in line to get access to them and in some cases a mixture of both, and again it varies by the subject area and by the teaching approach. Makes more sense that way, so there's not a one-size-fits-all but certainly the idea wherever they are they ought to be networked and access to resources outside the school as well.

CHAIRMAN NELSON: A friend who works in a fairly large Washington headquartered corporation indicated to me the corporation has concerns about obsolescence and the rapidity with which work stations have to be replaced for all employees. How do we deal with that in the educational environment? We had references made earlier today that kids were being trained in materials that no corporation uses any longer?

MR. SMALL: I think that's a real concern that we share as well. Really is a twofold approach. One of them is looking at creative ways of financing. Some districts are actually exploring the idea of leases so that they could actually turn over outdated equipment, at least at some value, and move on to

other equipment. The other is an educational process for the districts themselves, for the local community, that even once you've done a bond or a levy that's not one time for every bond and there it is, and same thing with our state legislators to help them understand that there is an ongoing nature to it and that we need to look at the total picture of resources so that if we're going to need to put more memory can we look at the full picture of what constitutes educational materials to make sure it's broad enough for equipment as well as textbooks.

COMMISSIONER GILLIS: Mr. Berg raised the issues of teachers need to become proficient in information technologies. Could you comment on that and how you think it --

MR. SMALL: Certainly as we look at what's been suggested in Washington state, and in the use of technology and telecommunications in the classroom, in the nation, what we see is kind of benchmarks for success. One of them is vision and language for technology at a level and another piece is the staff development and we've seen a variety of kind of creative approaches to that. There are student learning improvement grant dollars available from the state. I know in our latest competitive grant that a

lot of the districts specifically targeted those for learning how to use the technology wisely in the classroom as their matching funds, if you will, for that kind of approach. But it is an ongoing issue and we see everything from, say, in the Olympia School District where kids are trainers for teachers, which is kind of turning everything on its head, and takes a look (inaudible) for the staff to other places where there are mentor teachers freed up to have time to do that and, quite honestly, it's more giving at the due and thinking about it than it is a specific approach that always works one way or another.

JUDGE FFITCH: Thank you very much. That concludes the sign-up speakers. We're getting late in the day and nearly time to adjourn. Is there anyone else who wished to speak? If you would like to step foward, please, yes, sir. Introduce yourself.

MR. SCHAUDIES: Afternoon. My name is Sid Schaudies and I am a high school teacher at Rainier Beach High School.

JUDGE FFITCH: Could you spell your last name for the record?

MR. SCHAUDIES: S C H A U D I E S. It's a high school in the southern part of the Seattle school district which has high diversity and, well, you might

say, we're diversity rich and technology poor. I've been there for about five years and what I've noticed is in that environment it seems to come down to a matter of access. Not just access to the hardware but also to ideas and concepts and information that otherwise might not be available without the tools, and this is what I can see happening in the next couple of years. Our school doesn't have much. Our teachers don't know much themselves. The students currently know they're coming on, but in about four years we're going to start receiving students who are already technology literate, and they're going to come knocking at our doors and say, okay, I'm here, where is my machine? Where are my tools? You want me to do something and we're going to say we don't have any. They're not there. And even if they were we don't know how to use them.

So, something is going to happen here in about four or five years like that. I think the students are going to vote with their feet and once again we'll be left out. We'll be left with the ones that aren't motivated in those areas. At Rainier Beach High School I'm also the director for the teaching academy. Well, I should say the academy for the teaching professions and educational

technology. My -- the purpose of the teaching academy is to identify and prepare students who would be interested in becoming teachers and returning to the community once they finish their education thereby providing a pathway for those of their ethnic background. Our partners are Boeing and the University of Washington school of education and the Seattle School District. Well, my job is today to teach the students the tools they are going to be using in five or six years when they become teachers themselves and return to our school to be employed by our school district to teach the students that they left, which is -- that's the ideal. But I don't have the tools. The school doesn't have the hardware, but thanks to the connected learning community idea Microsoft put in at the Seattle Public Library Rainier Beach branch, about ten units, and so last year in a pilot project we had ESL students going over and just become aware of what is available, making home pages. Just getting to know the machines. Becoming familiar with them and finding out what could be available. This year my teaching academy students are learning the tools. The idea is that I am going to teach them the tools that they are going to be using as teachers. Then they go out into our school and teach our

students, their peers, what to do and then they, those students will teach -- the teachers will teach the teachers who don't know and who are willing and able. For those that aren't willing or able we'll just have to wait for them to leave. That's about it. It's a generational thing. Some folks quit learning.

I mean, they're doing the same thing they've been doing for 20 years, teaching the way they're taught. It's a whole new way of teaching. I'm talking about distributed education. I'm talking about schools without walls. I'm talking about cyber schools. Total emersion interactive environments. Well, we can't have those if we don't have people who can make them, and this is where we make them in this region. I want to provide the teachers, the trainers, the instructors that will be able to go use it -- go into our community, in our environment, through the community colleges and into the region to support those communities, well, the manufacturing communities.

The Northwest Center for Emerging Technologies is one area that I am working with. We're connecting with Issaquah High School who is technology rich, diversity poor. They know the technology but they can't get the money because they

don't have the minorities. They don't have the diversity. We, on the other hand, we don't have the technology but we have the diversity so we have the wealth of our diversity and they have the wealth of their technology and we're going to marry them together for our mutual benefit both for the students and for the community through the Northwest Center for Emerging Technologies.

There's also some discussion of trying to get the T1 line from the Seattle Public Library directly over to the high school which is only a block away, block and a half away. That can be done. But more importantly what might happen is that our school has channel one. Perhaps you've heard of it. It's that commercial television station that got into houses of high school students in the United States with some controversy about having students who are a captive audience. Well, I thought our high school didn't have a network and I've been pushing one for four yours, hard wire network, fiberoptics and all of these great things until I realized that we do have a network. We have the hardware. We've got the infrastructure. It's our cables. Our cable system going right into the schools. All we have to do with the new technology of the modems, the cable modems,

unplug them from our TVs, plug them into our computers, then I can teach the multi-media skills. I can teach students how to build an educational environment. Then I can offer a distance curriculum to other schools in the district where the students learn the tools, teach other students and teach teachers who are willing and able and wait for the rest to leave. That's it. That's the story.

JUDGE FFITCH: Questions?

CHAIRMAN NELSON: Channel one provides the cable system or did the cable system provide it?

MR. SCHAUDIES: My understanding is channel one did. They brought in televisions and the infrastructure and -- well, that's it.

CHAIRMAN NELSON: We had a representative of Seattle Public Library here this morning and he did get the T1 circuit from the High Point Community Center somehow extended to the West Seattle High School so I am sure you will be able to do that too.

MR. SCHAUDIES: Well, I worked with Willem. When we opened it up it was on Leap Year Day in February. It was the 29th and it was really interesting because, gosh, it was like Christmas. They were lined up at the doors and ready to go. So it's exciting but, just the same, that's not in our

building, and the vision I'm giving of cyber is not interactive cyber world, it may not be so far down the road, but we certainly can do it. We need the tools and that's why I say it's access. It's not just physical access. It's conceptual access and access as far as technologies are concerned, these technologies seem to be reflected by the associated economic status. That's it. If you don't have the bucks you don't get the stuff.

CHAIRMAN NELSON: Thanks.

JUDGE FFITCH: Thank you very much. We're going to conclude the hearing at this time. One other I'm sorry.

MR. VITZTHUM: Rick Vitzthum. I'm with Kalama-Tenino Telephone and I apologize for dragging this out but I also know the Bellevue traffic so a few more minutes isn't probably going to make a difference.

JUDGE FFITCH: It's V I T Z T H U M?

MR. VITZTHUM: Correct. Kalama and Tenino. Well, Tenino is outside of Olympia. Kalama is down in southwestern Washington. We operate through small rural areas. We're currently an Internet access provider and our two-way radius is in the adjacent territories of Longview and Olympia. We are providing

discounts to educators. We have worked very closely with our school districts to try to provide them access to the Internet. We provide both dial-up service and high speed access. As far as most of the educators are concerned they're interested more in dial-up because the networks within our schools don't have the capacity at this point for high speed.

I get a little concerned in what I've heard today in the fact of high speed networks, all the examples that have been cited have been big communities, Seattle, Tacoma, Spokane, Vancouver. I didn't hear a Woodland where I live or a Kalama as an example of where high speed network is going in, and while I don't necessarily believe that high speed networks correlate to education, which I think is the purpose behind all of this, the idea of universal service, of not creating information centers and have-nots, seems to me that some sort of special attention should be paid to the smaller rural communities, and along with that is this training, which I've heard quite a bit of that, put the technology out there, that it's not going to be necessarily used. When we talked with the schools about doing high speed transport, they just didn't have the equipment available or the people available

to take advantage of that technology.

So if we're going to do something in the rural community I think it is very important that not only we train the teachers but provide them also the access to the designers that can design the larger picture networks, that can design the high speed access that they really don't have access to at this point.

In response to one of the questions that Commissioner Nelson asked, in Kalama where the school couldn't afford to put in a computer lab they did a partnership with one of the local businesses in town where the local business came in and basically outfitted the computer lab for the school in exchange for which the business is allowed to use that lab in the evening to train its employees so that the employees can be up to date on the latest equipment, the latest software, but also the school district gets the benefit of having that available for the high school student. I think partnerships like that should be further utilized and, if at all, possible, promoted so that other communities can have those same benefits.

And lastly someone else put on their hat as a husband, my wife is on the Woodland library board.

She's co-chairman of the board. She's been very active in the library and I told her I was coming up and was going to listen in on this. And I said from the library's perspective what's the one thing you think you would need other than fixing a hole in the roof. What the libraries really need is high speed transport right now. In the Woodland library when people go out and want to request information it's all done via the post office. If you want a periodical or information like that it takes a number of days to get there. It's very costly because they're using the postal service photocopying information. They don't have the equipment or the band width there to get the information back to them. So from a library perspective in a small community it comes back to having that band width available. Thank you for allowing me to take a few more minutes of your time.

CHAIRMAN NELSON: I would like to know, can you tell me what the size of the discounts are that you provide.

MR. VITZTHUM: Right now for Internet access we provide for an educator $90 a year, $75 a month, which is probably less than 50 percent of what a normal rate is and we not only provide that within

our territory -- I mean within our local serving territory as a telecom company but also within any of the areas that we serve, so we have that in the Kelso School District. We have it in the Longview School District. We have it in the Kalama School District.

CHAIRMAN NELSON: 90 a year or 75 a month?

MR. VITZTHUM: 90 a year for 75 hours a month.

CHAIRMAN NELSON: Then how long have you been in the Internet access business?

MR. VITZTHUM: Just had our one year birthday. I had hair before we started it. It's just a divergence. It's very different from the telecom business. I mean, most people plug in the phone, they can pick it up and dial. I'm more amazed at the number of people when you put them on the Internet have no idea where the on/off switch is on their computer and so it's been a very learning experience for us.

CHAIRMAN NELSON: I think the example of the partnering with a business is a really interesting one, too, and it's another place where the act might prevent such prudent partnerships and we're going to have to take a look at that and appreciate your testimony.

COMMISSIONER GILLIS: How many schools within your service area take advantage of the discount that you're offering?

MR. VITZTHUM: Actually the school itself does not. It's been the individual teachers that have and just recently the Kalama School District received a -- they're one of 40 schools or at least the fifth grade teacher was one of the 40 teachers chosen in southwestern Washington to receive a technology grant, and we're in the process of hooking up several computers in his classroom to take advantage of our discount. Most of the time it's just been teachers using it in the classroom on their own machines but really not having student access necessarily but we are with Mr. Winnow setting up for the students.

COMMISSIONER GILLIS: So the discount goes to the teacher?

MR. VITZTHUM: To the teacher or the school district, either one.

CHAIRMAN NELSON: So if the teacher encounters a recalcitrant principal the teacher somehow can get through to your service?

MR. VITZTHUM: The teacher can get through. A lot of them have computers and modems in their classrooms and so they can order it there or they can

actually order it at home.

CHAIRMAN NELSON: Have they done what I did when I was a teacher, they paid for that computer themselves and brought it in? I didn't do that but I used to bring books in and things like that.

MR. VITZTHUM: Actually some of them took a look at the equipment they had, most of it is equipment that's been assigned to them. The one classroom we're setting up right now in the Kalama School District was provided six brand-new Apple McIntosh machines state-of-the-art and we're in the process of hooking those up for them.

COMMISSIONER GILLIS: Each time we go to these hearings, and we've been having a couple of related hearings over the past six months or so, keep hearing from persons like yourself that are actually operating within rural areas or users in rural areas and keep hearing stories that the customers, institutions like schools and like libraries, are already finding some access to Internet, so I would ask the question how concerned should we be? Is it happening out there in rural Washington or is there a need for public policy to support more?

MR. VITZTHUM: That's a good question. I guess I go back and I take a look at the diagram that

Mr. Bookey put up for high speed beta transport not only for Internet but just for a host of other things whether it be administrative video conferencing, video classrooms, those sorts of things aren't happening right now in rural communities, at least with the people that I talk with. Internet access, I think it's a way that is just continuing to move, and that has now come down into a lot of the rural communities, at least in southwest Washington have either through EAS or through a local provider Internet access. It's pretty tough not to find it now. But there are still a few isolated areas but it's getting so much better, but as far as going the next step beyond that for data transport and the other that's still, I think, a far ways away for rural communities at this point.

COMMISSIONER GILLIS: Within your network, are you able or contemplating to offer high speed data access?

MR. VITZTHUM: We actually offer high speed data access now to several different entities within our serving area. We have offered it to the schools for Internet in conjunction with this technology grant that they have for the fifth grade. It's just that they don't have the expertise to implement high speed data transport.

COMMISSIONER GILLIS: So expertise at the user end is that what you're saying.

MR. VITZTHUM: Yes, exactly.

CHAIRMAN NELSON: It's really what we were hearing last week in Spokane was wanting coordinators, was how the Whitman County put it, mentors, people from the user community that they can trust to help them figure out what it is they want and need. It's an interesting niche market, I think. Designers you would call it. It's an interesting concept.

COMMISSIONER GILLIS: Thank you.

JUDGE FFITCH: Thank you very much. Anyone else wish to make any comment? Thank you for your attendance. I will just note, as stated in the notice letter that went out for this meeting, Commission is also accepting written comments. Like to have those if possible by September 27th. If you would like to get an address you can see me after the hearing or Penny Hansen who is by the table at the back door and she can give you that address also. Thank you very much We are adjourned.

(Hearing adjourned at 5:00 p.m.)

C E R T I F I C A T E

As Court Reporter, I hereby certify that the foregoing transcript is true and accurate and contains all the facts, matters, and proceedings of the hearing held on: SEPTEMBER 23, 1996

Cheryl Macdonald

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BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN RE: UNIVERSAL SERVICE INQUIRY	DOCKET NO. UT-950724

A hearing in the above matter was held on Friday, September 27, 1996, at the hour of 1:15 p.m., at the Samuelson's Union Building, Central Washington University, Ellensburg, Washington, before CHAIRMAN SHARON NELSON, COMMISSIONERS RICHARD HEMSTAD and WILLIAM GILLIS.

The parties were present as follows:

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION STAFF, by Steven King, Assistant Attorney General, 1400 S. Evergreen Park Drive SW, Olympia, Washington 98504-0128.

Dina Lindquist, CSR

Court Reporter

I N D E X O F S P E A K E R S:

P R O C E E D I N G S:

MR. KING: Good afternoon, and welcome to our hearing of the federal Telecommunications Act on schools and libraries' universal service. My name is Steve King, I'm a member of the staff of the Utilities and Transportation Commission. And my job this afternoon is to moderate this public meeting.

Before we get started, I'd like to make some introductions and tell you a little bit about how we hope to conduct this meeting. There are several people from the Utilities Commission staff and the commissioners themselves. I'd like to introduce Chairman Sharon Nelson on my left and your right.

CHAIRMAN NELSON: Good afternoon.

MR. KING: And Commissioner Dick Hemstad.

MR. HEMSTAD: Hello, glad to see you.

MR. KING: And Commissioner Bill Gillis.

MR. GILLIS: Good afternoon.

MR. KING: On my right is Lee Palagyi, who is the member of our staff who's

working on this issue. And in the audience from our staff also we have Betty Rudolph and Terry Winfield.

The purpose of the meeting today is to share information about the issue of the Telecommunications Act of 1996 and the schools and libraries provisions as for those universal service issues generally. We very much want to hear what you have to say, we want to know what programs the schools have in place already, what libraries are doing, what concerns they have about the Act and any ideas they have for us.

Our agenda this afternoon is pretty simple. Chairman Nelson will make a couple remarks and then Lee Palagyi will give a brief overview of the issues that are before us and why they're important, and then we will have the speakers in the order in which they signed up.

Finally before we get going, I have a few housekeeping items. For the speakers, I will call your name when it's your turn to speak, and I'll do that in the order you signed up. When you come forward, please don't speak until you get to the microphone, and then if you could state your name and if you're representing any organizations,